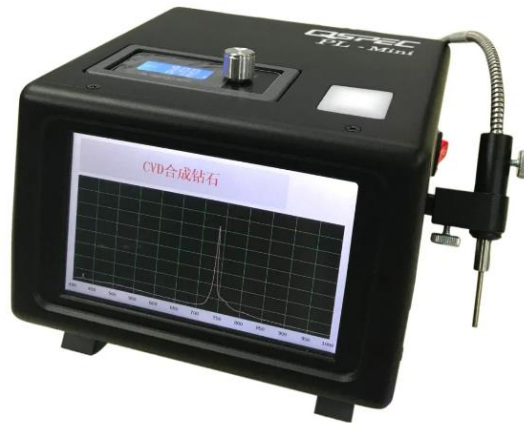




## PL-Mini



### Overview

PL-Mini is a desktop diamond verification instrument for loose and mounted diamonds, designed to separate natural diamonds, synthetic diamonds and diamond simulants. PL-Mini is manually operated and requires the user to interpret the test results.

PL-Mini uses photoluminescence spectroscopy technology where the instrument collects the luminescence spectrum of the stones after they have been excited by a laser. The operator makes a qualitative analysis of the instrument readings to determine the nature and type of each stone. Here are examples of the conclusions based on the analysis:

- i) Natural type Ib yellow diamond
- ii) Natural type Ia diamond
- iii) Natural type IIa diamond
- iv) HPHT synthetic diamond
- v) CVD synthetic diamond

### Stone Testing Capabilities

Weight range: **All**  
 Size of Stones: **All**  
 Colour range: **D-J**  
 Stone shape: **All**  
 Diamond simulants: **Yes**  
 Mounted stones: **Yes** not yet ASSURE tested

### Instrument Capabilities


Automated feed: **No**  
 Automated results: **No**  
 Automated dispense: **No**  
 Detect or Refer (synthetic diamonds): **Detect**  
 Detect or Refer (diamond simulants): **Refer**  
 Multiple stones at once: **No**  
 Training required: **Yes**

### Instrument Performance

The results demonstrate the performance of the PL-Mini tested by an expert operator:

	Core Sample	Smalls Sample
<b>Diamond False Positive Rate</b> <i>Optimal rate 0%</i>	1.0%	0.5%
<b>Diamond Referral Rate</b> <i>Optimal rate 0%</i>	9.1%	4.1%
<b>Diamond Accuracy Rate</b> <i>Optimal rate 100%</i>	80.0%	77.9%
<b>Speed</b> <i>Stones tested per hour</i>	517	517

### Instrument Specifications

 18 cm (W) x 15 cm (D) x 9 cm (H)

 1.3 kg

Price: 7,500 USD January 2021

### Contact

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